

**Work Order ID 59288**

Page 1

May 31, 2010 8:39:31 AM

Item ID: D412-702-321

Accept



Setup Start



Revision ID:

Item Name: Harness Assembly

Stop



Start Date: 5/31/10 Start Qty: 1.00



Cust Item ID:

Required Date: 6/07/10 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description
--------------------------------	--------------------------

Set Up/ Run Hours
----------------------

Tool ID
---------

Tool #
--------

Plan Code
--------------

Accept Qty
---------------

Reject Qty
---------------

Reject Number
------------------

Insp. Stamp
----------------

Draw Nbr	Revision Nbr
DSI 9511	A

100



Small Fab

Memo

0.00

0.00

Small Fab

Assemble as per dwg ICA D412-702 p.49

110



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

120



Packaging

Packaging

Memo

0.00

Identify with P/N &amp; CHG# and pack for shipping as per PPP D412-702-321

CHG001

Location: AAA 59285

PPP Rev:

**Work Order ID 59288**

Page 2

May 31, 2010 8:39:32 AM

Item ID: D412-702-321

Accept



Setup

Start



Revision ID:

Item Name: Harness Assembly

Stop



Start Date: 5/31/10 Start Qty: 1.00



Cust Item ID:

Required Date: 6/07/10 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run

Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center ID

130



QC

Operation  
Description

QC21- Final Inspection - Work Order Release

Set Up/  
Run Hours

0.00

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

Quality Control

Memo

0.00

10/06/01 HJ

PD 10-6-01  
(1)

## Picklist Print

May 31, 2010 8:39:30 AM

Page 1

Work Order ID: 59288



**Parent Item:** D412-702-321



**Parent Item Name:** Harness Assembly

**Comments:** IPP Rev:A new issue DD 10.04.30 verified:EC

**Start Date:** 5/31/10

**Required Date:** 6/07/10

**Comments:** IPP Rev:A new issue DD 10.04.30 verified:EC **Start Qty:** 1.00 **Required Qty:** 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
X D3570-3  Bracket		Manufactured	No				Each	13.0000	1	1		EJS10/06/01	
							<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>		
				ST245A				13					
				52885				13					
X D4088-043  Shoulder Harness		Manufactured	No				Each	0.0000	1	1		EJS10/06/01	
MS24694-S50  Screw		Purchased	No				Each	58.0000	4	4		EJS10/06/01	
							<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>		
				ST289				58					
				113538				58					
X AN960JD10L  Washer	NAS1149D0332J	Purchased	No				Each	3,923.000	4	4		EJS10/06/01	
							<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>		
				ST348				3923					
				110985				3923					

# Picklist Print

Page 2

May 31, 2010 8:39:31 AM

Work Order ID: 59288



Parent Item: D412-702-321



Parent Item Name: Harness Assembly

Start Date: 5/31/10

Required Date: 6/07/10

Comments: IPP Rev:A new issue DD 10.04.30 verified:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

MS21042L3



Nut

Purchased

No

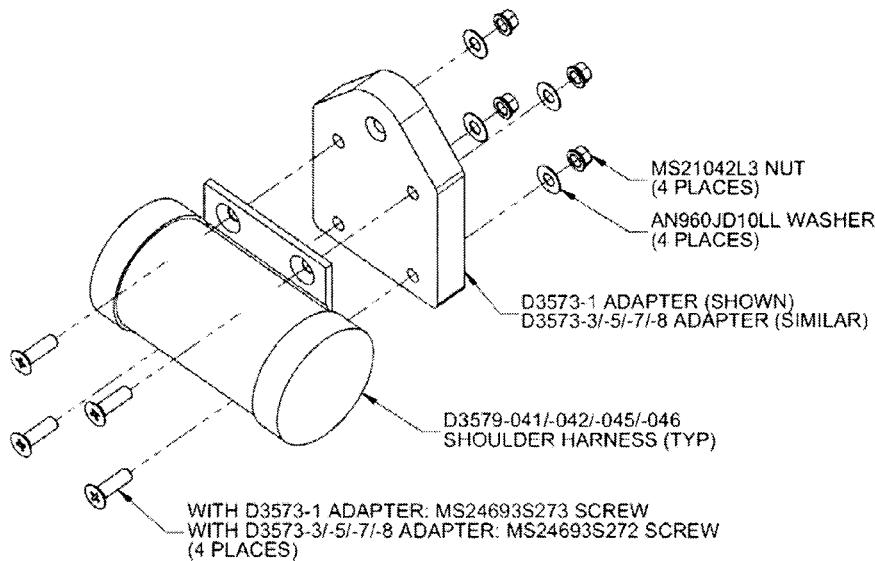
Each 3,655.000

4

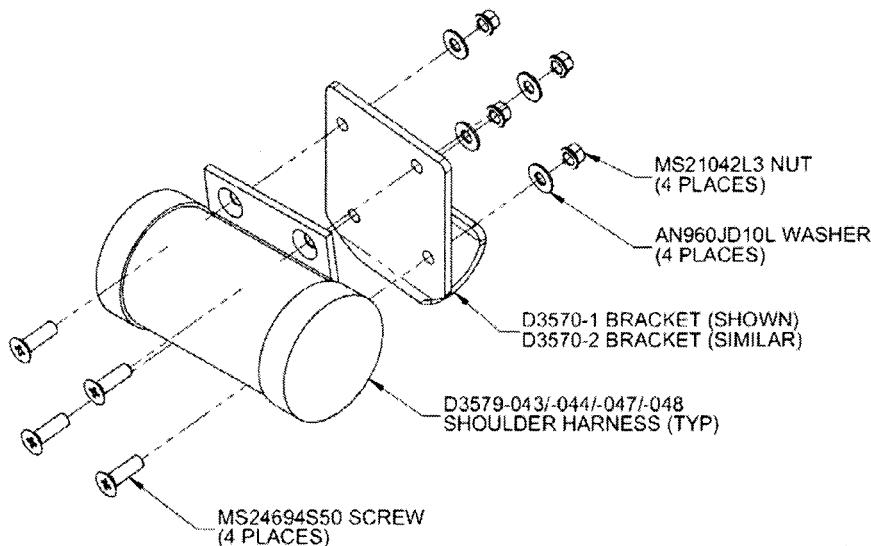


EF310/06/01

Location	Loc Qty	Loc Code
ST300	3655	
113537	20	
113644	135	4
114523	1000	
114718	500	
114784	2000	

WFO  
59288

DETAIL 'K' D412-702-101A/-103A/-105A/-107A/-109A/-115A/-117A AND  
D412-702-101B/-103B/-105B/-107B/-109B/-115B/-117B HARNESS ASSEMBLIES  
(BELTS, K6.2 CLIP AND D3569-1/-2/-3 DECAL NOT SHOWN)



DETAIL 'L' D412-702-111A/-111B/-113A/-113B HARNESS ASSEMBLIES  
(BELTS AND D3569-1/-2/-3 DECALS NOT SHOWN)

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25-00-00

# REFERENCE ONLY

## INSTALLATION

The Dart D412-702-3XX kits should be installed similar to the kits in Installation Instructions IIN-D412-702 Rev. E or Dart Service Instruction (DSI) listed below:

TABLE 1

Part Number	Description	Install similar to:
D412-702-341	Shoulder Harness Kit	D412-702-041B (IIN-D412-702, DSI 9408)
D412-702-343	Shoulder Harness Kit	D412-702-043B (IIN-D412-702, DSI 9453 [214], DSI 9408)
D412-702-345	Shoulder Harness Kit	D412-702-045B (IIN-D412-702, DSI 9469)
D412-702-347	Shoulder Harness Kit	D412-702-047B (IIN-D412-702, DSI 9408)
D412-702-349	Shoulder Harness Kit	D412-702-049B (IIN-D412-702, DSI 9408)
D412-702-351	Shoulder Harness Kit	D412-702-051B (LH) (DSI 9397, DSI 9408) D412-702-052B (RH) (DSI 9397, DSI 9408)
D214-702-337	Shoulder Harness Kit	D214-702-037B (DSI 9454)
D205-702-353	Shoulder Harness Kit	D205-702-053B (DSI 9460)
D412-702-301	Harness Assembly	D412-702-101B (IIN-D412-702)
D412-702-303	Harness Assembly	D412-702-103B (IIN-D412-702)
D412-702-305	Harness Assembly	D412-702-105B (IIN-D412-702)
D412-702-307	Harness Assembly	D412-702-107B (IIN-D412-702)
D412-702-309	Harness Assembly	D412-702-109B (IIN-D412-702)
D412-702-311	Harness Assembly	D412-702-111B (IIN-D412-702)
D412-702-313	Harness Assembly	D412-702-113B (IIN-D412-702)
D412-702-315	Harness Assembly	D412-702-115B (IIN-D412-702)
D412-702-317	Harness Assembly	D412-702-117B (IIN-D412-702)
D412-702-319	Harness Assembly	D412-702-119B (DSI 9454)
D412-702-321	Harness Assembly	D412-702-121B (DSI 9454, DSI 9469)
D412-702-323	Harness Assembly	D412-702-123B (DSI 9454, DSI 9469)

CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION BRANCH	
DAO # 01-O-01	
<b>APPROVED</b>	
BY:	<i>[Signature]</i>
D. SHEPHERD (DE # 02)	
DATE:	10.03.22
CERT. NO.:	SH04-7
ISSUE NO.:	3

DESIGN	9	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA  DRAWING NO. DSI 9511  REV. A SHEET 2 OF 6
DRAWN	9	
CHECKED	b	
MFG. APPR.	N/A	
APPROVED	<i>[Signature]</i>	
DE APPR.	<i>[Signature]</i>	
DATE	10.03.18	SCALE NTS  <b>NEW SHOULDER HARNESS KITS</b>  <small>COPYRIGHT © 2010 BY DART AEROSPACE LTD            THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS            NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT            WRITTEN PERMISSION FROM DART AEROSPACE LTD</small>

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

**REFERENCE ONLY**

**PARTS LIST**

**TABLE 2**

QTY -341	QTY -343	QTY -345	QTY -347	QTY -349	QTY -351	Part Number	Description
X						D412-702-341	Dart 13-Man 3-Point Shoulder Harness Kit
	X					D412-702-343	Dart 5-Man 3-Point Forward Facing Shoulder Harness Kit
		X				D412-702-345	Dart 4-Man 3-Point Aft Facing Shoulder Harness Kit
			X			D412-702-347	Dart 4-Man 3-Point Side Facing Shoulder Harness Kit
				X		D412-702-349	Dart 1-Man 3-Point Forward Shoulder Harness Kit
					X	D412-702-351	Dart 1-Man 3-Point Shoulder Harness Kit
1	1	1	1	1		D412-702-059	GROMMET KIT
9	5	4	1	1		D3761-1-041	HOOK AND LOOP STRIP (DSI 9408)
2	1	1	1			D412-702-301	HARNESS ASSEMBLY (NEW)
1*	1*	1*	1*			D3573-7	ADAPTER
1*	1*	1*	1*			D4088-041	SHOULDER HARNESS (NEW)
4*	4*	4*	4*			MS24693S272	SCREW
4*	4*	4*	4*			AN960JD10LL	WASHER
4*	4*	4*	4*			MS21042L3	NUT
2	1	1	1			D412-702-303	HARNESS ASSEMBLY (NEW)
1*	1*	1*	1*			D3573-8	ADAPTER
1*	1*	1*	1*			D4088-041	SHOULDER HARNESS (NEW)
4*	4*	4*	4*			MS24693S272	SCREW
4*	4*	4*	4*			AN960JD10LL	WASHER
4*	4*	4*	4*			MS21042L3	NUT
1	1			1		D412-702-305	HARNESS ASSEMBLY (NEW)
1*	1*			1*		D3573-1	ADAPTER
1*	1*			1*		D4088-041	SHOULDER HARNESS (NEW)
4*	4*			4*		MS24693S273	SCREW
4*	4*			4*		AN960JD10LL	WASHER
4*	4*			4*		MS21042L3	NUT
1	1			1		D412-702-307	HARNESS ASSEMBLY (NEW)
1*	1*			1*		D3573-3	ADAPTER
1*	1*			1*		D4088-041	SHOULDER HARNESS (NEW)
4*	4*			4*		MS24693S272	SCREW
4*	4*			4*		AN960JD10LL	WASHER
4*	4*			4*		MS21042L3	NUT
1	1					D412-702-309	HARNESS ASSEMBLY (NEW)
1*	1*					D3573-3	ADAPTER
1*	1*					D4088-041	SHOULDER HARNESS (NEW)
4*	4*					MS24693S272	SCREW
4*	4*					AN960JD10LL	WASHER
4*	4*					MS21042L3	NUT

\* denotes that part is included in assembly above

continued next page...

CANADA	
DEPARTMENT OF TRANSPORT	
AIRCRAFT CERTIFICATION	
BRANCH	
DAO # 01-O-01	
APPROVED	
BY:	
D. SHEPHERD (DE # 02)	
DATE:	10.03.22
CERT. NO.:	SH04-7
ISSUE NO.:	3

DESIGN	99	DRAWING NO.	REV. A
DRAWN	99		
CHECKED	13	DSI 9511	SHEET 3 OF 6
MFG. APPR.	N/A		
APPROVED	100	TITLE	SCALE
DE APPR.	100		
DATE	10.03.18	NEW SHOULDER HARNESS KITS NTS	

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action      Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

**REFERENCE ONLY**

...continued from previous page

QTY -341	QTY -343	QTY -345	QTY -347	QTY -349	QTY -351	Part Number	Description
1		1				D412-702-311	HARNESS ASSEMBLY (NEW)
1*		1*				D3570-1	BRACKET
1*		1*				D4088-043	SHOULDER HARNESS (NEW)
4*		4*				MS24694S50	SCREW
4*		4*				AN960JD10L	WASHER
4*		4*				MS21042L3	NUT
1		1				D412-702-313	HARNESS ASSEMBLY (NEW)
1*		1*				D3570-2	BRACKET
1*		1*				D4088-043	SHOULDER HARNESS (NEW)
4*		4*				MS24694S50	SCREW
4*		4*				AN960JD10L	WASHER
4*		4*				MS21042L3	NUT
1		1				D412-702-315	HARNESS ASSEMBLY (NEW)
1*		1*				D3573-5	ADAPTER
1*		1*				D4088-041	SHOULDER HARNESS (NEW)
4*		4*				MS24693S272	SCREW
4*		4*				AN960JD10LL	WASHER
4*		4*				MS21042L3	NUT
1		1				D412-702-317	HARNESS ASSEMBLY (NEW)
1*		1*				D3573-5	ADAPTER
1*		1*				D4088-041	SHOULDER HARNESS (NEW)
4*		4*				MS24693S272	SCREW
4*		4*				AN960JD10LL	WASHER
4*		4*				MS21042L3	NUT
1		1				D412-702-321	HARNESS ASSEMBLY (NEW)
1*		1*				D3570-3	BRACKET
1*		1*				D4088-043	SHOULDER HARNESS (NEW)
4*		4*				MS24694S50	BOLT
4*		4*				AN960JD10L	WASHER
4*		4*				MS21042L3	NUT
1		1				D412-702-323	HARNESS ASSEMBLY (NEW)
1*		1*				D3570-4	BRACKET
1*		1*				D4088-043	SHOULDER HARNESS (NEW)
4*		4*				MS24694S50	BOLT
4*		4*				AN960JD10L	WASHER
4*		4*				MS21042L3	NUT

\* denotes that part is included in assembly above

continued next page...

CANADA	
DEPARTMENT OF TRANSPORT	
AIRCRAFT CERTIFICATION	
BRANCH	
DAO # 01-O-01	
<b>APPROVED</b>	
BY:	<i>[Signature]</i>
D. SHEPHERD (DE # 02)	
DATE:	10.03.22
CERT. NO.:	SH04-7
ISSUE NO.:	3

DESIGN	<i>99</i>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA DRAWING NO. DS1 9511 TITLE NEW SHOULDER HARNESS KITS DATE 10.03.18	REV. A
DRAWN	<i>99</i>		SHEET 4 OF 6
CHECKED	<i>b</i>		
MFG. APPR.	N/A		
APPROVED	<i>10</i>		
DE APPR.	<i>11</i>		
SCALE	NTS		
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

...continued from previous page

**REFERENCE ONLY**

QTY -341	QTY -343	QTY -345	QTY -347	QTY -349	QTY -351	Part Number	Description
2	2					D3542-1	BRACKET
7	3		4	1		D3571-1	GUIDE
2	2					D3571-3	GUIDE
2		2				D3572-041	GUIDE ASSEMBLY
12	6		6	2		D3578-041	DOUBLER
2	2					D3610-041	BRACKET
2	2					D3618-1	CAP
4	4					AN4-10A	BOLT
2		2				AN4-16A	BOLT
4		4				AN4-25A	BOLT
4		4				AN4-27A	BOLT (DSI 9469)
2	2					AN4-44A	BOLT
2	2					MS24693S274	SCREW
3	3			1		MS24694S56	SCREW
10	2		8			MS24694S58	SCREW
1	1			1		MS24694S60	SCREW
26	6	20				AN960JD416	WASHER
4		4				AN960JD416L	WASHER
12	6	6				MS21042L4	NUT
24	12		12	4		CR3212-4-4	RIVET

CANADA  
DEPARTMENT OF TRANSPORT  
AIRCRAFT CERTIFICATION  
BRANCH  
DAO # 01-O-01

APPROVED  
BY: *[Signature]*  
D. SHEPHERD (DE # 02)

DATE: 10.03.22  
CERT. NO.: SH04-7  
ISSUE NO.: 3

DESIGN	<i>90</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
DRAWN	<i>99</i>	
CHECKED	<i>a</i>	
MFG. APPR.	N/A	
APPROVED	<i>100</i>	
DE APPR.	<i>100</i>	
DATE	10.03.18	REV. A SHEET 5 OF 6 TITLE NEW SHOULDER HARNESS KITS NTS SCALE COPRIGHT ©2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries